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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,583	07/06/2001	Charles William Norman	1226a	5290

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EXAMINER
NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/899,583	NORMAN, CHARLES WILLIAM	
	Examiner	Art Unit	
	Steven HD Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/2002 has been entered.

Claim Objections

2. Claims 1-34 are objected to because of the following informalities:

3. Claim 1, line 10, claim 11, line 7, claim 22, lines 7-8 and claim 29, lines 11 "the unused space" should be changed to – an unused space"

. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuta et al (USP 5600648) in view of Flanagan et al (USP 5159595).

Regarding claims 1, 10-11, 21-23, 28-30 and 34, Furuka discloses a first adapter assembly adapted (Fig 19, this adapter receives the secondary communication signal and inserting the primary overhead section into a secondary transport overhead section and secondary payload into a primary transport payload as show at figure 12 and 13 to transport the signal across the primary ring) to receive the secondary communication signal from the secondary ring and the primary communication signal from the primary ring, to combine the secondary overhead with the primary overhead to form a transport overhead "Fig 12, (a) such as SOH, POH", to combine the secondary payload with the primary payload to form a transport payload "Fig 12, VC-4"and to combine the transport overhead with the transport payload to form the transport communication signal for transport across a communications path of the primary ring "See Fig 12 (a)"; and a second adapter assembly adapted (Fig 12, this adapter removes secondary overhead section from a secondary transport overhead section and secondary payload from a primary transport payload as show at figure 12 and 13 and combining the section overhead with a payload to form a communication signal for transporting the signal across the secondary ring) to receive the transport communication signal from the primary ring, to remove the secondary overhead from the transport overhead "Fig 12, (a) and (b) removing SOH of STM-1 from SOH of STM-4 "transport overhead"", to remove the secondary payload "Fig 12, (a) (b) removing a VC4 of STM-1 from transport payload STM-4, VC4" from the transport payload, and to combine the secondary overhead with the secondary payload to create the secondary communication signal for transport to the secondary ring "Fig 12 (b), combining a SOH, POH and Payload, VC-4 to form an STM signal for transmitting in the local loop area" and combining the secondary section overhead with an unused space of primary overhead to form a transport

overhead (See col. 5, lines 10-34, a ref 12 is a mapping means, which receives a STM-1 signal such as SOH includes RSOH and MSOH, for inserting the overhead section of STM-4 signal and payload of STM-1 is inserted into a payload of STM-4 signal). However, Furuka fails to disclose the primary and secondary rings that interconnect by a cross connect apparatus and combining the secondary overhead with an unused space of primary overhead to form a transport overhead based on an received error information. In the same field of endeavor, Flanagan discloses (See Fig 3-12, Col 2, line 1 to col. 14, line 67) a communication system for transporting a secondary communication signal from a secondary synchronous optical network ring (Figs 5 and 7 discloses an add/drop multiplexer for extracting the overhead and payload from main signal to form a second signal STS-1 and inserting a STS-1 into STS-48 signal which has an unused space based on an received error information "K1 and K2" from a ring) on a primary synchronous optical network ring which has a primary communication signal, wherein the secondary communication signal has secondary overhead and the primary communication signal has primary overhead by inserting the secondary section overhead into an unused space of the primary section overhead to form a transport overhead based on a received error information and the primary ring is operated by a first carrier and the secondary ring is operated by a second carrier (Fig 14 discloses a cross connect for coupling a plurality of rings together wherein the main ring has a transmission rate such STS-12 and a secondary ring has a transmission rate such STS-1 wherein the STS-1 signal has an overhead information which used for automatic protection switching bytes for switching from a failure channel to a protecting channel "K1 and K2"; wherein the overhead and payload insert into main signal and extract from main signal to

form a secondary signal based on the received error information; see col. 6, lines 63 to col. 8, lines 38 and col. 9, lines 12 to col. 12, lines 50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the teaching of Flanagan's communication system such as inserting the section overhead and transport payload to form a section overhead and transport payload a new communication signal based on the received control information into Furuta's communication system. The suggestion/motivation would have been to decrease the cost of the communication system and have a path continuity from a node on one ring to a node on another ring to be maintained, thereby facilitating reliable end to end path monitor.

Regarding claim 2, Furuta et al disclose the second adapter assembly is further adapted to remove the primary overhead from the transport overhead and the primary payload from the transport payload, to combine the primary overhead with the primary payload to form a primary communication signal for transport in the primary ring (Fig 18 and 19, ref 30a, 11 and 20. The second adapter removes primary overhead and payload and reassembly them to continue transmission across the network).

Regarding claims 3-6, Furuta discloses (See Fig 19, Col 2, lines 32 to col 14, lines 14) a first multiplexer (Ref 30d) adapted to separate the primary overhead from the primary payload; a second multiplexer (Ref 30a) adapted to separate the secondary overhead from the secondary payload; a converter (Ref 30b) adapted to receive the secondary overhead from the second multiplexer and the primary overhead from the first multiplexer and to load the secondary overhead into available overhead space of the primary overhead, thereby creating the transport overhead; a cross connect (Ref 20) adapted to receive the secondary payload from the second

multiplexer and the primary payload from the first multiplexer and to combine the secondary payload with the primary payload to form a transport payload; and a third multiplexer (Ref 30b) adapted to receive the transport overhead from the converter and the transport payload from the cross connect and to combine the transport overhead with the transport payload to form the transport communication signal and a processor for connecting the multiplexers, the converter, the cross connect and performing the function of disassembling or assembling the signals between STM-1 and STM-4 "it is explicitly disclosed".

Regarding claims 12 and 24, Claims 12 and 24 are similar to claim 2. Therefore, claims 12 and 24 are rejected under similar rationale.

Regarding claims 13-14, Claims 13-14 are similar to claims 3-6. Therefore, claims 13-14 rejected under similar rationale.

Regarding claims 15-16, Furuta discloses an interface adapted to receive the transport communication signal from the primary ring and to transmit the transport communication signal to the first multiplexer and an interface adapted to receive the primary communication signal from the second multiplexer and to transmit the primary communication signal to the primary ring (Fig 19).

Regarding claim 17, Furuta discloses an interface adapted to receive the secondary communication signal from the third multiplexer and to transmit a secondary communication signal to the secondary ring (Fig 19, receiving the communication signal from the DCS; the communication signal is multiplexed into the secondary signal and transmitting it onto the secondary ring; STM-1).

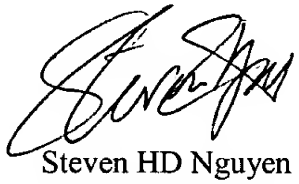
Regarding claims 7-9, 18-20, 25-27 and 31-33, It is explicitly for the secondary overhead including LOH, RSOH, and MSOH in the SONET formatted.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Steven HD Nguyen
Primary Examiner
Art Unit 2665
December 30, 2002